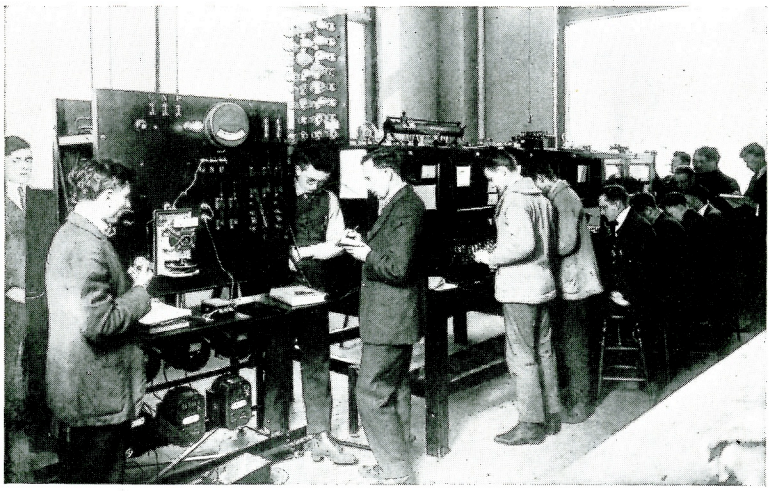
On Actual Equipment

An hour with a good instructor in well equipped laboratories is worth more than ten struggling alone. Every facility is here at your disposal.

Meter Testing Laboratory

Radio Work

Radio work is fascinating and is a study which every boy enjoys. As the School of Engineering has as its aim the giving to its students a thorough and comprehensive course, every term you will have accomplished something definite, and, in case you do not continue the next term's work, you will be able to enter the industry with a good working knowledge of that important subject.



Meter Testing and Calibrating

Are you sure electrical measuring instruments register correctly? You can be sure if you finish a School of Engineering course because you learn how to test and calibrate various types of meters.

Automotive Electrotechnics

You are taught everything necessary in Automotive and Gas Engine starting and lighting. You will learn how to repair and maintain storage batteries. Dozens of tables contain the various electrical systems used, everything in plain sight ready to be tested and investigated by you.

The layout on the tables contains the same equipment you will find in the latest as well as the earliest starting systems. Not only ignition systems for automobiles, but also for aircraft, motor-cycles and motor boats are at your disposal. You will also study ignition troubles and remedies. Nothing that is essential has been omitted. The thoroughness of the course can be gathered from the outline. It follows that the instructors are especially well qualified.

Tools and Apparatus of Many Kinds

This photograph shows one of the tool rooms equipped with meters and laboratory testing apparatus which contains hundreds of various commercial instruments.

Armature Winding

When the lights burn dim there is generally some trouble with the armature or the fields. The

In *Term 4* You Study Wireless and Radio Work

Because of the great demand for wireless experts, you will receive a good, practical training in radio work.

You will learn the construction, operation and use of the radio instruments and appliances; the transmitter; the oscillator; the transformers; "choking coil"; condensers; radio-detectors and the other auxiliary apparatus.

At the conclusion of this term's work you will be able to transmit and receive wireless messages.

Wireless Telegraphy

Electromagnetic Induction, The Induction Coil, Storage-batteries as applied to Radio work. The Radio Transmitter, Condensers, Oscillation, Generators, Radiation of Electrical Waves, Damping of Electrical Oscillations, Determination of Wave Length, Simple Explanation of the Circuits.

Appliances for a Radio Transmitter—Spark Discharges—Oscillation Spark Discharges - Oscillation; Transformers—High-Frequency "Choking" Coils, High Potential Condensers, Aerial Change over Switch—Transmitting-keys.

A Class in Radio

This is a class on radio receiving. In radio work much stress is laid on accuracy and on practical methods

Function of the Aerial. Fundamental Considerations. Various Types of Aerials. Installation of the Aerial. Earth Connection. Radiation. Transmitting Range.

Receiving Circuits—Detectors and Tuning Apparatus. Simple Receiver—Methods of Coupling. Adjustment of Crystal Detectors—Electrolytic Detectors—The Vacuum Valve Amplifier—End Turns—Receiving-telephones.

Auxiliary Apparatus, or Emergency Transmitters. Statute Requirements. Practical Radio Measurements—Measurement of Wave Length—Decrement—Calibration—Transmitting and Receiving Apparatus. Calculation of Inductance from the Constants of the Coil—Measurement of High Voltages—Tuning and Adjustment.

Panel Transmitters—Composite Transmitters, Marconi Direction Finder or Wireless Compass and its Application. The Tuned Buzzer Tester. To find the Direction of a Radio Station. Practical Laboratory Experiments.

Mathematics

Text: Same as Term I. Systems involving problems of all kinds involving two and three unknowns, especially problems of applied electricity, three unknowns, square root, radicals, quadratic equations, problems involving quadratics, engineering formulas, ratio and proportion, problems and applications.

English

Literature—Eliot's *Silas Marner*, Lamb's *Essays* (Selected), etc.

Composition and Rhetoric—*English for Business*, Chapters XI–XV. The newspaper; advertising; business letters with special emphasis on business letter forms, etc. Oral and written themes. Home Reading.

Drawing

Applied Geometry—Continuation of the course outlined in Term III.

U. S. History

Text: *S. E. Foreman—Advanced American History.* Continuation of the course outlined in Term III.